Nova Scotia

ANNUAL REPORT

for the fiscal year
ending March 31, 1984

Department of Agriculture and Marketing

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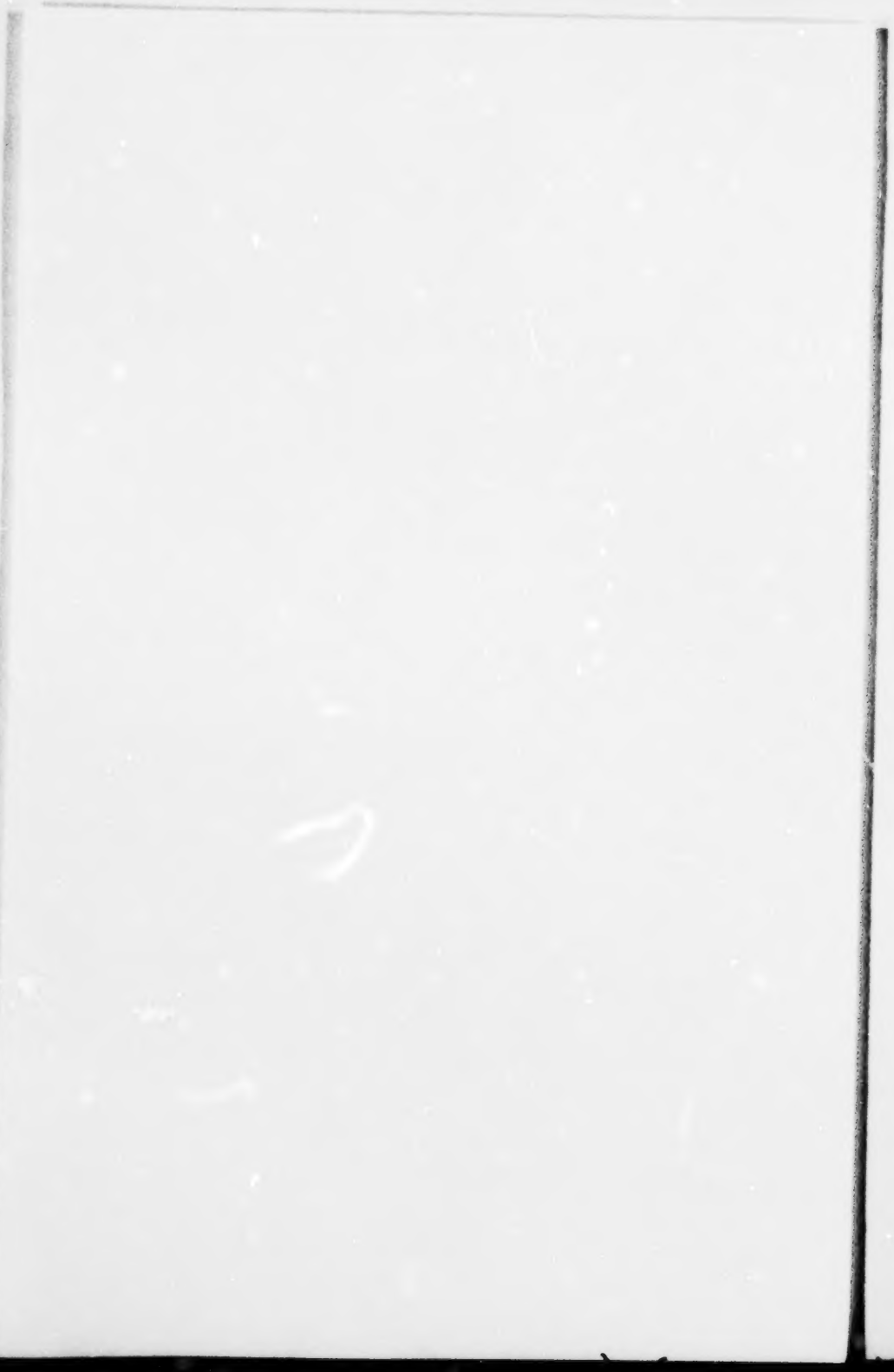
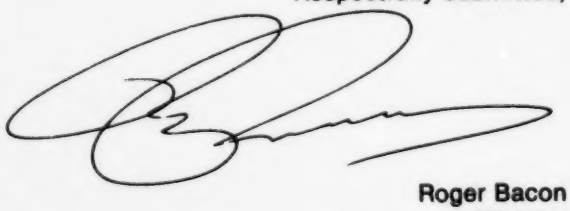


His Honor,
The Honourable Alan R. Abraham, C.D.
Lieutenant-Governor of Nova Scotia

May It Please Your Honour:

I have the honour to submit the Annual Report of the Department of Agriculture and Marketing for the fiscal year ended March 31, 1984.

Respectfully submitted,



Roger Bacon
Minister

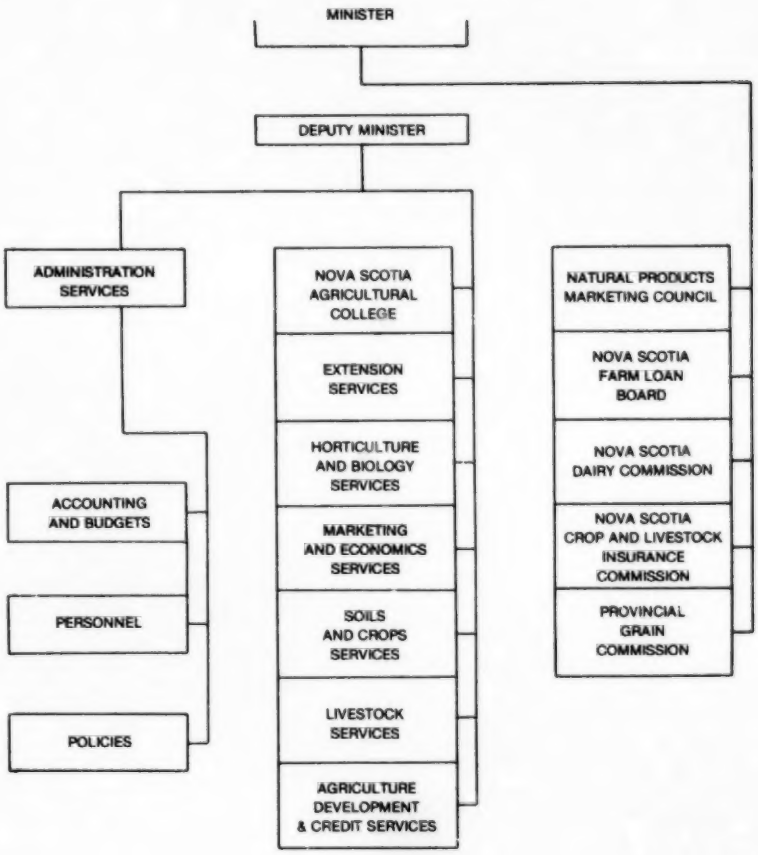
The Honourable Roger Bacon
Minister of Agriculture
and Marketing
Province of Nova Scotia
Halifax, Nova Scotia

Dear Sir:

I have the honour of presenting the Report of the Department of Agriculture and Marketing for the fiscal year ended March 31, 1984.

Respectfully submitted,

W.V. Grant
Deputy Minister


MINISTER
DEPUTY MINISTER
ADMINISTRATION SERVICES
ACCOUNTING AND BUDGETS
PERSONNEL
POLICIES
NOVA SCOTIA AGRICULTURAL COLLEGE
EXTENSION SERVICES
HORTICULTURE AND BIOLOGY SERVICES
MARKETING AND ECONOMICS SERVICES
SOILS AND CROPS SERVICES
LIVESTOCK SERVICES
AGRICULTURE DEVELOPMENT & CREDIT SERVICES
NATURAL PRODUCTS MARKETING COUNCIL
NOVA SCOTIA FARM LOAN BOARD
NOVA SCOTIA DAIRY COMMISSION
NOVA SCOTIA CROP AND LIVESTOCK INSURANCE COMMISSION
PROVINCIAL GRAIN COMMISSION

NOVA SCOTIA AGRICULTURAL COLLEGE

OVERVIEW

During the 1983-84 academic year, the third year of the B.Sc. (Agr.) was offered for the first time with 49 students registered in all options. The extension to Cox Institute was not completed on schedule (December, 1983) due to a series of labor disputes which were finally settled by the Spring of 1984. The new extension will be occupied by September, 1984.

Plans were completed for the new Animal Science Building to be located directly across from the Central Heating Plant and the Hancock Veterinary Building. Construction is expected to begin early in 1985.

Approval was received in the 1983-84 budget for ten new staff positions comprised of three new teaching positions and seven support staff. Also, approval was received from the Maritime Provinces Higher Education Commission to offer two new options in the Degree Program in 1985-86, Chemistry-Soils and Agricultural Mechanization.

COURSES OFFERED

The following is a summary of courses offered at the College:

Degree

A complete four-year program of study leading to the B.Sc. (Agr.) degree with a choice of one of four options:

Animal Science
Agricultural Economics
Plant Protection
Plant Science

Approval was received from the Maritime Provinces Higher Education Commission to provide two new options in the Degree Program: Chemistry-Soils and Agricultural Mechanization.

Students can take other options without interruption by transferring to the third year of the B.Sc. (Agr.) program at Mac-

donald College of McGill University, the University of Guelph, the University of Maine or Faculty of Agriculture at another university.

B.E. -The Nova Scotia Agricultural College offers the first three years of a four or five year program in Agricultural Engineering. Students can transfer without interruption to MacDonald College of McGill University or they can apply to the Technical University of Nova Scotia or another engineering faculty for the final year(s) of this professional engineering degree course.

Pre-Vet.-A one year program for students who wish to attempt admission to the Ontario Veterinary College of the University of Guelph in the course leading to a Doctor of Veterinary Medicine degree.

Technician

The following two-year programs of study are offered:

Agricultural Business
Agricultural Mechanization
Animal Science
Farm Equipment
Plant Science

Technology

The following are two-year courses offered to students coming directly from high school:

Biology Laboratory Technology
Chemistry Laboratory Technology
Landscape Horticulture Technology

The following two-year programs are offered only to students who have successfully completed one year of a specified Technician Course (or equivalent):

Agricultural Engineering Technology
Farming Technology

Students in the Farming Technology Course spend 11 months (including summers) of their course work on farms. Seven of those months consist of structured training under a farmer/instructor.

Agricultural Technology

Agricultural Technology is a one-year program tailored to meet the needs of the student. Only Technician graduates are eligible to apply for this course.

REGISTRATION

Degree Courses

1983-84	Agricultural Science	Agricultural Engineering	Total
First Year	106	11	117
Second Year	80	5	85
Third Year	47	2	49
	233	18	251

1983-84	Technician Courses	Technology Courses	Total
First Year	100	22	122
Second Year	72	21	93
	172	43	215

1983-84	Special Students
Degree (Full Time)	3
Technician (Full Time)	7
	10
Degree (Part Time)	11
Technician (Part Time)	4
	15
Total Full Time	476
Total Part Time	15
Total Student Enrollment	491

VOCATIONAL AND CONTINUING EDUCATION PROGRAMS

Vocational courses have been designed to assist men and women to enter or progress in farm or farm-related careers. Forty separate courses were held during the year on 32 topic areas with 671 persons enrolled. In addition to Vocational Courses, 12 Continuing Education Courses were held with 218 persons enrolled. Total overall student training days for Vocational and Continuing Education Courses were 12,626 on 52 separate courses and 44 topic areas. Twenty-four persons participated in Home Study Programs. The combined total enrollment for the above programs was 913 persons.

The Canada Employment and Immigration Commission sponsored 53 percent of the students enrolled on Vocational Courses by paying the tuition costs and, on the majority of courses, over ten days in duration, a training allowance. Seventeen of the courses were over ten days in length. Enrollment this year was the highest in the 18-year history of the Vocational Program. Details on enrollment are given in the following table:

Province	No. of Vocational Students			% of Total Students		
	1981-82	1982-83	1983-84	1981-82	1982-83	1983-84
Nova Scotia	392	663	427	71.3	77.8	63.6
New Brunswick	95	125	86	17.3	14.7	12.8
Prince Edward Island	36	43	27	6.5	5.0	4.0
Newfoundland	15	11	24	2.7	1.3	3.6
Other	12	10	107	2.2	1.2	16.0
	550	852	671	100.0	100.0	100.0

RESEARCH PROJECTS

A total of 40 projects was approved by the Research Committee. Research funds came from the following sources:

Source	Funds $'000
N. S. Department of Agriculture and Marketing	255.
Agriculture Canada	41.
N.S.E.R.C.	97.7
Industry Contracts and Grants	33.8
Total	427.5

COLLEGE FARM

Crops

The 1983-84 crop year marked the third year of a detailed five-year plan for all of the farm fields. Ten hectares (22 acres) were seeded to annual ryegrass. Approximately 30 hectares (67 acres) were cut as hay, 18 hectares (40 acres) for grass silage and 23 hectares (51 acres) for corn silage. Approximately 32 hectares (71 acres) were seeded to feed grains; oats 4 hectares (9 acres), winter wheat 10 hectares (22 acres), and barley 18 hectares (40 acres).

LIVESTOCK

Visitors to the livestock units tend to be increasing in numbers. Twenty-three hundred school children from around the Province visited on organized tours of the livestock units. Livestock numbers as of March were:

Dairy Cattle	
Ayrshires	56
Holsteins	57
Beef Cattle	
Herefords	21
Cross-breds	38
Shorthorns	46
Lacombe	39 (on lease)
Sheep	241
Swine	361
Poultry	6,421

Dairy B.C.A. Rolling herd averages as of March, 1984, were M171 F186 for Ayrshires and M160 F167 for Holsteins. Both the Ayrshires and the Holsteins improved slightly from the previous year.

Sixty-two beef cows calved in 1983 producing 55 marketable calves. The cows were rebred to N.S.A.C.'s Simmental bull. To minimize calving difficulties, the yearling heifers were bred to a

Shorthorn bull. In February, 1984, 36 registered, in-calf Shorthorn cows plus four bulls were received on lease from the Federal Research Station at Lacombe, Alberta. These animals represent 28 years of continuous selection and the objective of the transfer is to monitor the performance of the cattle under Maritime conditions.

The comparison of productivity from the 'traditionally' and 'intensively' managed sheep flocks continued in 1983-84. The traditional flock (50 ewes) lambed in March, 1984, producing 86 marketable lambs for a lambing percentage of 172 percent. The intensive flock lambed twice: 43 ewes produced 55 marketable lambs in April/May, 1983, for a lambing percentage of 128 percent and 41 ewes produced 61 marketable lambs in December, 1983/January, 1984, for a lambing percentage of 149 percent. Preliminary data indicates the increased lambing productivity for the intensive flock does not support the greater costs involved.

The swine unit saw an increase in herd size from 1982 to 43 sows and gilts. A total of 805 pigs were born with an average of 18.85 live pigs per sow per year and weaning 15.4 pigs per sow per year. Six hundred and thirty-one hogs were marketed, averaging 14.7 pigs per sow and maintained very good grade indexes. A cooperating agreement for purposes of Swine Research resulted in 364 hogs being raised at the Nappan Experimental Farm.

Five broiler flocks of approximately 2,000 birds each were grown during 1983-84. Three of these were associated with projects involving the evaluation of whole canola seed and two were required for teaching purposes. Eighteen hundred Leghorn layers were involved in a study of the interaction of genotype, housing and debeaking. A study of intermittent lighting involved another five hundred layers. A computer control system is being installed in Poultry II to control the physical environment.

LIVESTOCK SERVICES BRANCH

OVERVIEW

The Livestock Services Branch provides services to the total livestock industry in three general areas: (1) provides expertise in feeding, breeding and management; (2) provides rapid and accurate diagnosis of animal diseases for practising Veterinarians and farmers; and (3) provides for the regulation, production, inspection, distribution and sale of milk.

The total livestock industry was faced with unprecedented input cost in 1983. High interest rates and feed costs were of major concern. The sectors most severely affected were the red meats, i.e., beef, pork and lamb. The red meat commodity groups, particularly beef, experienced low prices throughout 1983. During 1983, a new Beef Cow-Calf Support Program was developed in cooperation with the Nova Scotia Cattlemen's Association. During the year, a tripartite red meat program was studied by the provinces with Ontario, Manitoba, Saskatchewan and Alberta showing interest along with the Federal Government.

The sheep industry faced the same situation of low prices. Wool marketing caused some concern with major buyers indicating a reduced purchase volume. The Wool Marketing Board, with authority for check-off, did not want to become the agent of S.P.A.N.S.-hence the request to the Minister for S.P.A.N.S. to become a Commodity Board.

The swine industry was another commodity hard hit pricewise. The industry was able to maintain the number of producers and programs mainly because of the Pork Stabilization Program. A total of 222 producers are enrolled on this program, representing 90 percent of total production. The Province still leads the rest of Canada in the quality of hogs marketed.

The dairy cattle sector represents the largest single segment of the livestock industry. The D.H.A.S. Program continues to grow with 210 producers on the owner-sampler program. Considerable concern is being expressed with proposed changes in the R.O.P. Program and the number of patrons waiting to get on the program. A Task Force was appointed to look at all recording systems and report to the National Recording Group. The Nova Scotia Dairy

Commission reports 645 producers as of January, 1983. During the year, 17 producers left the industry and two new producers commenced shipping fluid milk, making a net figure of 630 producers as of December 31, 1983.

Farm sales of milk from fluid producers, industrial producers and cream shippers in terms of milk was 170,993,635 litres (376,185,997 pounds), a decrease of 3.8 percent over the previous year. A major study of the milk marketing process in Nova Scotia started in February. The report was presented in late July. Although approval in principle was narrowly defeated in a producer vote, it was agreed by the Producers' Association to leave the matter with the Board of Directors to determine the next course of action. Deliveries under the M.S.Q. Program for the year ending July 31, 1983, totalled 2,212,036 kilograms (4,866,479 pounds) of butterfat, a decrease of 7.3 percent from last year but still 6.3 percent over the 1982-1983 provincial entitlement of 2,081,000 kilograms (4,578,200 pounds).

The poultry industry segments — Egg, Chicken, Turkey and Pullet — are all under a supply management system. The egg commodity group has been under a National Supply System for twelve years. The poultry commodities under supply management have provided for more stability to their respective industries — producers, support industries, processors, retailers and consumers — than commodities not encompassed by supply management. The total cash farm income from the poultry industry is $47,060,500. While there may be problems within the industry commodity group, the benefits outweigh the problems.

The veterinary staff and laboratory facilities support all branches in the Department of Agriculture and Marketing, as well as provide diagnostic services to the Department of Lands and Forests. Laboratory submissions for all species in 1983 were 9,181 specimens. The Livestock Health Services Program assisted 48 veterinarians in 19 practices, working under 23 Livestock Health Services Boards during 1983. Other programs to assist the livestock owners are the Herd Health Program for swine and pilot project for dairy and sheep. The veterinary sector provides expertise to the large animal, poultry and fur industries.

The fur farming returns over the past year remained stable. The number of mink and chinchilla breeders remained constant

with a continued expansion in the fox sector. There are 166 licensed ranchers of mink keeping 65,500 breeder females, four licensed chinchilla ranchers with 400 breeders and 182 licensed fox ranchers. The farm income for the fur industry was $10.6 million.

The regulations pertaining to artificial insemination in the province made under Part VI dealing with 'the improvement of livestock breeding' of the Agriculture and Marketing Act were revised in the fall of 1983. They were approved by Governor-in-Council on December 1, 1983, at which time they came into effect. While changes were made to clarify the intent, they also facilitate the prosecution of offenders.

BEEF

Production

The following table outlines the total cattle population as of January 1, 1984, with previous estimates for comparison purposes:

Nova Scotia — Cattle ('000)

	January 1984	January 1983
Bulls	1.7	1.7
Milk Cows	36.0	35.9
Beef Cows	26.0	26.0
Milk Heifers	15.0	15.0
Beef Heifers-Replacement	7.0	7.0
Beef Heifers-Slaughter	3.7	3.7
Steers Over One Year	10.2	10.2
Calves Under One Year	36.0	33.5
Total	135.6	133.0

Prices

Slaughter cattle prices have remained low throughout 1983. A1, A2 steers averaged $68.25/cwt. at the Truro Sale compared to $70.50/cwt. in 1982. During the same period, D1, D2 cows sold at $46.27/cwt. compared to $48.00 in 1982.

In 1983, two feeder cattle sales were held in Truro. The overall average for both sales on 1,988 cattle was 72.05¢ per pound which was five cents higher than in 1982.

AVERAGE PRICE - TRURO FEEDER SALE

1978	1979	1980	1981	1982	1983
$72.36	$82.51	$80.90	$65.38	$67.10	$72.05

Choice and good steer calves averaged 78.12¢ per pound compared to 72.44¢ per pound in 1982. Quality was extremely good at both sales. The sales returned a total of $791,540 for the 1,098,670 pounds of beef sold.

Improved Sire Policy

Assistance was paid on the purchase of bulls during the year as follows:

	1979	1980	1981	1982	1983
Purebred Herd Sires	24	32	28	22	33
Commercial Herd Sires	125	132	131	123	121
Total Assistance Paid	33,800	51,650	37,175	43,300	54,450
Value of Bulls	$185,260	$205,367	$246,005	$177,865	$192,200

All bulls must be performance tested either at home or at the Maritime Beef Cattle Test Station and meet minimum standards for rate of gain and yearling weight. This has helped to reduce time spent on selection and inspection of bulls. This policy has also helped to educate producers in the use of performance records and their application to practical breeding programs.

Beef Cow-Calf Support Program

During 1983, a new program was developed in co-operation with the Nova Scotia Cattlemen's Association. The purpose of this program is to increase the production of beef cattle in Nova Scotia and provide some economic stability to the beef cow-calf sector of the industry. Applications under this program are to be processed during the winter months of 1984.

Performance Testing

We continue to participate in the Federal-Provincial R.O.P. Beef Program with 158 herds enrolled on the Home Test Program. This program is designed to assist breeders in selecting replacement heifers and herd sires on the basis of rate of gain. It is a very valuable aid in a selection program. During the fall of 1983, 175 herds were enrolled on Home Test making an increase of herds from the previous year.

In addition, the Maritime Beef Cattle Test Station continues to operate on a year-round basis at Nappan. Since 1966, 2,074 bulls have been tested at Nappan.

During 1983, 159 bulls were tested at Nappan. About 60 percent of all bulls tested were from Nova Scotia.

The Test Station at Nappan also offers excellent facilities for the Annual Bull Sale held in April of each year.

Community Pastures

Livestock numbers remained fairly constant on Community Pastures during 1983.

The Cape John pasture had 484 head of cattle and 391 sheep and lambs entered. The cattle did very well on pasture with an Average Daily Gain of 2.12 pounds. No disease or management problems were encountered. In general, patrons were well satisfied with livestock performance on the Cape John pasture in 1983.

The Cape Mabou pasture had 530 head of cattle and 320 sheep and lambs pastured. Cattle performance was excellent with an Average Daily Gain of 1.90 reported.

The Minudie pasture continued to operate under lease agreement and 477 head of cattle were pastured for 9 patrons. Cattle performance was good at this pasture during 1983.

The five Co-operative Pastures located at L'Ardoise, Cheticamp, Glendale, Manchester and Digby were operated under the management of local co-operatives.

SHEEP

Production

The sheep industry in 1983 continued to be one of low returns to producers. Marketing of lambs continues to be a problem. Northumberland Marketing Co-op has been quite successful in 1983 marketing lambs with a projection of 4,000 lambs marketed for the year ending March 31, 1984. Sheep and lamb numbers in Nova Scotia as recorded by Statistics Canada on July 1, 1983, were 46,000. This was an increase of 2,000 from the previous year.

The Livestock Services Branch continued to work closely with the R.O.P. Ram Test Station at Nappan in 1983. Twenty-one rams were officially tested for Average Daily Gain and 100-Day Adjusted Weight. Nova Scotia breeders consigned 17 head.

The Home Test Record of Performance Annual Report showed a decrease in lambs tested. The report shows 71 flocks with 5,673 lambs born and 5,048 lambs weaned. These numbers are a little higher because of late submissions.

The Home Test Program provides a mechanism for measuring the performance of individual ewes, lambs and sires in a flock compared to the performance of others within the flock.

Prices

Lamb and mutton prices at Maritime Cattle Market were almost the same as the previous year. Good market lambs, 80 pounds and up, were selling at an average price of 63.65¢ per pound live weight (1982-67.66¢). Lambs 60-80 pounds were selling at an average price of 66.47¢ per pound live weight (1982-60.40¢). Sheep, choice and good, averaged $40.16 per head (1982-$42.33). The volume offered through the market was approximately 5,227 lambs and 2,007 sheep.

The Annual Sheep Fair Breeding Stock Sale grossed $14,907.50. The sale had ewe lambs, yearlings, two-year old females and selected R.O.P. tested rams.

	1983		1982		1981	
	No.	Average	No.	Average	No.	Average
Ewe Lambs	59	$64.48	77	$52.70	219	$63.75
Yearlings	35	87.49	59	80.34	125	81.72
Two-Year Olds	14	58.93	27	53.15	77	78.15
Mature					160	49.36
Rams	38	190.00	35	262.00	52	190.00

One Feeder Lamb and Cull Ewe Sale was held in Mabou on October 4, 1983. There were 1,137 lambs, ewes and rams sold for a gross of $36,475.57.

Assistance Policies

The Livestock Services Branch supervised three Sheep Policies in 1983. They were the Improved Sire Policy, Sheep Production Policy and Sheep Pasture Improvement Policy.

Improved Sire Policy

January 1, 1983 - December 31, 1983

Total Number of Rams Bonused - 47

Suffolk	- 36	North Country Cheviot	- 2
Dorcet	- 4	Hampshire	- 3
Leicester	- 2		

18 rams bonused at $20.00 (making Super Class, Class I or Class II from the Maritime Ram Test Station).

Total Assistance $2,803.00

Sheep Production Policy

January 1, 1983 - December 31, 1983

No. of Yearlings bonused - 1,340
No. of Producers - 40

Total Assistance - $28,940.00

Sheep Pasture Improvement Policy

January 1, 1983 - December 31, 1983

Approximate No. of Acres Fenced - 523
Feet of Wire Used - 52,640
Land Cleared (acres) - 28
Average Flock Size - 103

Total Assistance - $16,893.02

The outlook for 1984 is lamb prices should be stronger. This may help stimulate a little improvement in prices paid for breeding stock. Marketing will continue to be a top priority of the Sheep Producers' Association.

GOATS

The Goat Association was quite busy during the year. Some of the activities were: a Buck Show; a sale of young Doe Kids; Classification Session; Maritime Show and other local shows.

There are a number of 4-H Club members having goats as their project.

Ten producers were officially tested under the D.H.A.S. Program.

SWINE

Production

A total of 221,686 hogs was marketed through federally-inspected plants in 1983. This was an increase of 2.0 percent over 1982. The average weekly price for 100 index hogs over the year was $64.21 per cwt. The gross sale value of these hogs was in the area of $30,000.

Pork Quality

The following is a comparison of how Nova Scotia indexed in relation to the Canadian average in 1979, 1980, 1981, 1982 and 1983.

	Index 102 +					Index 105 +					Index 108 +				
	1979	1980	1981	1982	1983	1979	1980	1981	1982	1983	1979	1980	1981	1982	1983
Can.	66.6	65.6	67.4	68.8	79.3	33.1	33.3	35.0	38.0	39.4	8.2	8.6	9.4	11.4	12.3
N.S.	78.6	80.1	74.9	78.7	81.1	49.4	49.7	49.0	47.7	51.8	16.2	16.6	16.0	14.9	17.7

As shown by the figures, there was an increase in the percentage of hogs reaching the index levels (102, 105, and 108) in 1983. Nova Scotia producers continue to lead other provinces in Canada on the quality of hogs marketed.

Record of Performance Testing

There continued to be strong support for both Home and Station Testing of swine in 1983. One thousand four hundred and ten boars and 3,423 gilts were tested on the Home Testing Program in 1983. This is an increase in comparison with 1982.

A total of 603 boars was tested at the Nappan Test Station in 1983 with an average backfat of 13.2mm (0.53 in.) and an average days of 150 at 90 kilograms (198.5 pounds).

The Station operated at 100 percent capacity, as compared to 55 percent capacity in 1982.

Swine Herd Health Program

There are now 110 pork producers enrolled on the Swine Herd Health Program, utilizing the services of nine local veterinarians. Visiting of producer herds on a regular basis has resulted in improving the overall management and health situation in our swine herds. This program becomes of even greater importance during periods of low pork prices when top performance is necessary.

Improved Sire for Swine

The quality of hogs marketed in Nova Scotia is in a large measure due to the continued use of the best performance-tested boars available.

Assistance was paid on a total of 324 boars.

Nova Scotia Pork Price Stabilization Program

A total of 222 pork producers are enrolled on this program representing over 90 percent of our total production. This program has been very valuable in maintaining our industry through the continued low price periods of recent years. Without this program, many of our producers would have found it very difficult to survive due to the economic forces presently in existence.

Swine Breeding Stock Sales

There was continued lower demand for swine breeding stock in 1983 due to depressed pork prices. The value of animals sold through the Nova Scotia Swine Breeding Stock Sales Society in 1983 amounted to $126,000. The Society continually explores sales opportunities to other countries.

Producer Organizations

We continue to work closely with both the Pork Producers' Association of Nova Scotia and the Pork Producers' Marketing Board of Nova Scotia.

This close liaison is very important in developing programs and policies. Two areas, for example, in which we have participated is with regard to cost of production study committees considering supply management and stabilization programs.

POULTRY

Production

The Nova Scotia poultry industry is broken down into five economic production divisions, though they may be overlapping. They are: (1) Egg Production; (2) Pullet Production; (3) Broilers - (a) Cornish Chicken, (b) Light, (c) Regular and (d) Roasting; (4) Turkeys - (a) Broilers, (b) Hens; (5) Hatchery.

In Nova Scotia we have six registered hatcheries. J. & J. Proudfoot's Hatchery closed out operations at year end, 1983, with that meat chick production being taken over by a hatchery in New Brunswick. The egg segment has 52 registered producers who pro-

duced 17.7 million dozen eggs. We have 21 commercial pullet producers with a total quota of 825,666 pullets.

Nova Scotia's registered chicken producers grew approximately 13.8 million kilograms (30.4 million pounds) (eviscerated weight) of chicken. Eleven registered turkey producers grew 562,000 turkeys or 1.88 million kilograms (4.145 million pounds) (eviscerated weight).

Blood Testing Program

The Branch continued an extensive blood testing and vaccination program for exhibition birds. In 1983, there were over 2,500 birds in the 4-H Poultry Project. The unbanded exhibition birds will continue to be tested for Pullorum.

There were only two outbreaks of I.L.T. in 1983. Both were in the Liverpool area and involved small flocks. Our vaccination program appears to be helping to keep I.L.T. out of our commercial flocks.

The trial being carried out in a multi-age layer flock to test an MG vaccine is still proceeding. It is too early to tell how effective the vaccine is at this point.

DAIRY

Production

The year 1983 was one of restraint, hope and expectation for Nova Scotia dairymen.

Many producers reduced milk cow numbers to stay within their M.S.Q. allocation and then discovered they were short of milk in October, November and December.

Milk production was down considerably in 1983 compared to the year previous while per capita consumption of fluid milk was up slightly. Increased promotion of milk and milk products was instrumental in increasing consumption and a similar program in the future should be encouraged and promoted.

Dairy Cattle Sales

Cattle prices in 1983 were down somewhat compared to the previous year. The number of cull cows and heifers was up and with reduced buyer demand for stock, cow prices were very discouraging.

	Jan. 1/83	July 1/83	Jan. 1/84
Cows for Milk	34,000	32,000	31,000
Replacement Heifers	11,000	11,000	11,000
Total	45,000	43,000	42,000

Dairy Herd Analysis Service

As of December 31, 1983, there were 210 herds on the Owner-Sampler D.H.A.S. Program. This is the same number as in 1982.

As of December 31, 1983, the 196 herds which had completed at least 12 months on the program had a rolling herd average of 6,207 kilograms (13,684 pounds) of milk with a 3.60 percent butterfat test. Production per cow in 1983 increased 152 kilograms (335 pounds) compared to 1982.

The top herd average in 1983 was 8,281 kilograms (18,256 pounds), the highest in Nova Scotia D.H.A.S. history.

The main thrust of the Dairy section is involvement and supervision of the D.H.A.S. Program and Dairy Cattle Extension Field Services. It is also involved with breed associations' work, Federation of Agriculture, Nova Scotia milk producers, Canadian Milk Recording Board, exhibitions, 4-H Clubs, the Holstein Sire Selection committee and the Nova Scotia Animal Breeders Cooperative.

VETERINARY

The Veterinary section has responsibility in the following areas:

(a) Collaborates extensively with the Food Production and Inspection Branch, Agriculture Canada, in disease control and Canada Domestic Inspection;

(b) Responsible for the Livestock Health Services Program, which operates under the Livestock Health Services Act and is

carried out by local Livestock Health Services Boards. This program provides for the delivery of veterinary service to livestock owners;

(c) Responsible for the Swine Herd Health Program which is available across the Province through nine veterinary practices;

(d) Operates the Veterinary Pathology Laboratory which processes and reports on specimens from all animal species, for producers and veterinarians;

(e) Works closely and often collaborates with other sections of the Livestock Services Branch, other branches of the Department and other departments of Government.

Livestock Health Services Program

This program is carried out under the Livestock Health Services Act by approximately 48 veterinarians in 19 practices working under 23 Livestock Health Services Boards. The number of veterinarians in large animal practice varies slightly throughout the year but the numbers have gradually increased over the past several years. This program is responsible for the delivery of veterinary service to livestock producers in Nova Scotia.

The number of services provided, kilometers (miles) driven and the payments to Livestock Health Services Boards are shown for 1981, 1982 and 1983.

Year	No. Clinic* Calls	No. Farm* Calls	Km (Miles) Driven	Payment** to Boards
1981	2,745	34,161	1,225,080 (761,265)	$1,017,500
1982	2,494	32,011	1,149,557 (714,335)	1,170,500
1983	1,993	28,601	1,056,179 (656,310)	1,230,250

* Data from monthly statements that practices submit to Boards for payment.

** Payments to veterinary practices are less than funds paid to Boards.

Swine Herd Health Programs

The Swine Herd Health Program was made more comprehensive in 1980. The producer is entitled to one herd health visit per month. The Department of Agriculture pays the veterinarian's call fee and

1/3 of his hourly rate while he is on the farm. Not all producers request monthly visits. Some prefer bi-monthly visits and some want less frequent visits. The Department offers similar financial assistance to producers to encourage them to have post mortems done when pigs die in their herds. This is an opportunity producers should regularly take advantage of. Producers are encouraged to have post mortems done at the Veterinary Pathology Laboratory.

There are approximately 100 herds enrolled under the Swine Herd Health Program. The number of services increased slightly in 1983.

Veterinary Pathology Laboratory

During the past two years there has been a gradual decrease in the number of specimens from horses, cattle, sheep and swine. This reduction is likely best explained by the economic squeeze producers have been in for the past couple of years. However, other factors play a significant role.

(1) Diseases that caused an inordinate amount of alarm in the sheep industry during 1980-81 are rarely seen in Nova Scotia today;

(2) The Swine Herd Health Program, which also provides for post mortem services by practicing veterinarians, has reduced the need for laboratory services for that species;

(3) The recent appearance of commercial products, e.g. VICOGEN (a vaccine against calf diarrhea) and IVERMECTIN (a broad spectrum drug against parasites), have had a major, positive impact on animal health. Technology has advanced to the point that the livestock industry can expect to see more of these major animal health products in the near future.

FUR FARMING

The Fur Farming sector remained stable over the past year. The number of producers and animals kept in the mink and chinchilla sector has remained constant with a continued expansion in the fox sector.

Mink Ranching

Mink ranching continues to be the largest section of fur farming in Nova Scotia.

There are presently 166 licensed producers within the Province keeping 65,500 breeder females. This is a slight decrease from last year. The reason is due to the decrease in prices over the past few years forcing some smaller producers out of business and restricting major expansion by the established producer.

Digby County continues to be the stronghold of the mink industry, keeping 70 percent of the total females in the Province, while Kings County has the fewest with .03 percent of the total females kept.

The total pelt production in Nova Scotia is approximately 220,000, which is 17 percent of Canada's mink production.

The main auctions held in Canada were at Hudson's Bay, Toronto, in December, 1983, and February, 1984, with some pelts going to smaller auction houses in New York.

The overall pelt average at Canada Mink Breeder-sponsored sales to date is $31.18. This is comparable to last year. However, the Canadian overall average for Dark or Black mink to date is $41.60 which is up $5.17 from last year at this time. This substantial increase in Black mink is very beneficial to Nova Scotia since 70 percent of the total production is Dark mink.

This increase is a shot in the arm for the mink producer since the past four years have all been on a declining scale. The Dark mink in the sales were completely sold which gives room for optimism for the next pelting season.

The farm gross in 1983-84 pelting season will be in the vicinity of $9.6 million. This represents an infusion of new money to Nova Scotia's economy and since 50 percent of the sales were to foreign countries, it also represents a net benefit of $4.8 million to the Canadian economy.

Fox Ranching

Fox ranching continues to expand in Nova Scotia with 182 licensed ranchers keeping breeder females. This is a significant increase over last year which is due to the continued favorable market conditions.

The average number of females kept per animal is 18 with the largest keeping in excess of 200 females. Approximately 6,000 pelts were produced which is double the 1982 production.

The Silver fox continues to be the predominant fox raised in Nova Scotia. The other types raised are Pearl Platinum and Platinum. There are a few ranchers importing breeding stock of new varieties from outside Canada hoping to diversify their operations.

The other major interest the past year is the introduction of artificial insemination in foxes. There are many advantages in A.I. such as reduced male numbers kept and new color phases developed. The producers in Nova Scotia and in Canada feel we must acquire this technique in the near future if we are to stay competitive in the World market.

The major sale in Canada was held in February, 1984, at Hudson's Bay, Toronto. The top bundle of silver pelts sold for $335.00. The overall Canadian average was $175.00, up $20.00 from last year. This average price gives the producer a favorable margin between production costs and returns. This has been the case since major reemergence of the industry in the mid-1970's.

Nova Scotia continues to be the third largest producer of fox pelts, behind New Brunswick and Prince Edward Island.

The Fox Research project located at the Nova Scotia Agricultural College continues to serve the industry. There have been trials taking place the past year on semen collection and freezing. It is hoped this project will be expanded in size in the near future to better suit the industry and researchers' needs.

Chinchilla Ranching

Chinchilla ranching continues to be a small section of the fur industry in Nova Scotia.

There are presently four licensed producers having a total of 400 breeder females. Of the four producers, there is one full-time who has 50 percent of the total breeders in the Province.

Pelt prices for chinchilla have remained stable with an average of $25.62.

Rabbit

The rabbit industry continues to be at a standstill. With the closest federally-inspected plant in Ontario, it has made rabbit production in Nova Scotia uneconomical.

The few remaining producers in Nova Scotia are selling fresh rabbit off the farm or keeping fancy rabbits for show.

As in the past, there is no forseeable change in the rabbit industry situation.

MARKETING AND ECONOMICS BRANCH

OVERVIEW

Present and future agricultural marketing concerns in Nova Scotia are going to increase as we develop a more production-oriented approach to self-sufficiency - a noble objective for many commodities - and steps have been taken in the right direction.

The Nova Scotia Department of Agriculture and Marketing has always been production-oriented; however, it is becoming increasingly important that greater emphasis be placed on marketing. A company's success depends on its ability to sell goods or services. It must, therefore, be market-driven and customer-oriented. As companies grow, this vital element is often forgotten. This is going to require more marketing staff and greater funding to do the necessary programs.

There is a strong demand for increased self-sufficiency and a greater need to assist producers to achieve marketing objectives. For example, we recognize the need to transfer marketing technology to the farming public through applied research. A new marketing thrust has been used both to assist farmers to organize themselves and maintain the maximum share of the consumer dollar (from expanded production), as well as to have producers capture more of the value-added returns by involving them in agricultural processing.

A marketing strategy has been developed by increasing knowledge of export marketing to overseas and United States markets. Also, market analysis programs have been increased by expanding market information availability to producers, analyzing factors influencing supply and demand and helping farmers to better understand factors affecting the marketplace. Marketing systems have been increased through more legislation, greater use of the Natural Products Act and the supervisory council, the Natural Products Marketing Council, which facilitates the establishment of producer-controlled marketing organizations.

Great emphasis has been placed on the food processing industry for new development, expansion and modernization. At present, there are 205 agricultural processing plants employing 6,000 people.

As well as creating new jobs, another long-range objective of the program is to replace imports. Nova Scotia agriculture has a golden opportunity to export many products over the next twenty years, but only if the industry aggressively works to capture those markets. Trade in agricultural products is growing rapidly, particularly in developing countries.

Export potential for two native crops, lingonberries and Chanterelle mushrooms, has been investigated but follow-up potential volume surveys and studies must be made.

The export of Nova Scotia products to St. Pierre and Miquelon is increasing. Also, the export of processed vegetables to world markets has increased yearly. Carrot production and processing (slices and dicing) increased in 1983 and new sorting and grading machinery was added. Approximately 700 acres of carrots were planted and approximately 20 million pounds were harvested. Plans call for further acreage expansion in 1984.

MARKETING BOARDS

Nine commodity marketing boards operated in the province under the general supervision of the Natural Products Marketing Council. They were:

(1) Nova Scotia Wool Marketing Board, established 1947

(2) Pork Producers Marketing Board of Nova Scotia, established 1952

(3) Nova Scotia Chicken Marketing Board, established 1966

(4) Nova Scotia Egg and Pullet Producers Marketing Board, established 1966

(5) Nova Scotia Turkey Marketing Board, established 1972

(6) Nova Scotia Flue-Cured Tobacco Growers' Marketing Board, established 1973

(7) Nova Scotia Processing Pea Marketing Board, established 1980

(8) Nova Scotia Winter Grain Marketing Board, established 1981

(9) Nova Scotia Potato Marketing Board, established 1982

CO-OPERATIVES

Sales by co-operative organizations increased by $30 million in 1983 over the previous year, as reported in the 1981 Annual Report of Co-operative Associations.

Co-operatives are now a major economic force in the Province of Nova Scotia and are set for significant increases in the years to come. Management is generally strong, markets are increasing, and economic conditions have, for the most part, put co-operatives in a strong position for the future.

Co-operatives now employ over 3,000 full-time employees, manage over 40,000 acres of forestry land, provide housing for over 1,200 families and market over 70 percent of the agricultural products of the province.

Agricultural marketing co-operatives continue to dominate the activity of co-operatives in Nova Scotia accounting for over two-thirds of the sales and an equal percentage of the assets of all co-operatives. Over 80 percent of all farmers are members of a co-operative and market their products through an agricultural marketing co-operative.

This year, the highlights of the Co-operative Section were as follows:

(1) The merger of two of the largest agricultural marketing organizations — Eastern Dairyfoods and Scotsburn co-operative — on December 31, 1983 with sales in excess of $100 million, assets of over $25 million, membership over 900 and members' equity of over $12 million.

(2) There are over 80 housing co-operatives with an average of 15 family members. These 1,200 families and 6,000 people have assets in their co-operatives of over $60 million. Housing co-operatives, in just a few years, have grown to be the largest sector of the co-operative system in Nova Scotia when measured in terms of members of organizations and assets employed.

(3) There were 23 co-operatives registered in 1983 — nine more than in 1982 and the largest number of incorporations in one year since the Department of Agriculture and Marketing began administering co-operatives in 1936. Six worker co-operatives were incorporated in 1983 bringing the number of this relatively new type of co-operative to 15. There are 209 co-operatives registered under the provincial legislation. Eleven co-operatives were struck from the Register.

(4) Seven new publications were printed with seven publications updated and four new publications being prepared.

(5) Training sessions (11) were held for co-operatives on different aspects of their business especially in relation to their boards of directors.

(6) Three directories — Agriculture, Foodservice and Forestry Industry — were written and published.

(7) A number of agricultural marketing projects were promoted — the school cheese program and wild rice.

(8) There are over 50 agricultural commodity associations in the province. Four new Societies were incorporated and assistance was provided to 20 established agricultural organizations in areas of management, accounting and legal requirements.

GENERAL ECONOMIC ANALYSIS

Increased demand for services was experienced from industry organizations and departmental personnel including senior management. At the same time, hard copy output of economic reports has perhaps never been greater. Areas of in-depth active policy development included dairy (mostly involving the National Dairy Policy), the domestic feed grain policy including the western grain transportation initiative, land use and stabilization policy. Less concentrated involvement ranged over a much broader spectrum of issues, problems and developmental opportunities.

AGRICULTURAL MANPOWER

Considerable changes have occurred in the method of operating the Agricultural Manpower Committee. The farmer representatives

have insisted on taking a much more active part in the planning process than in previous years. They have been extremely active both as committee and sub-committee members and have involved the industry in the planning and development of the Farm Certificate Program.

At the same time, the sub-committee is also acting as an advisory committee to the Nova Scotia Agricultural College in the implementation of the Farm Certificate Program, funded by the Employment, Development and Immigration Commission under institutional training and industrial training. This is supplemented by a provincial contribution of $40,700.

As of the end of the year, the provincial budget and institutional training funds allotted to the Farm Certificate Program will have to be funded under the industrial training program for the remainder of this fiscal year.

The Agricultural Manpower Committee has spent some time in reviewing and experimenting with vocational training programs. Its thinking at the moment is this committee should be developing vocational courses in co-operation with the commodity groups.

The success of a swine management course directed by an Advisory Committee from the swine industry indicates the Committee is moving in the right direction when the commodity organizations are involved in the education process.

The lowbush blueberry industry has undergone major expansion. New land has been brought into production and new cultural methods of fertilizing and weed control will double the yield from existing fields. A major program of training people at the supervisory level is necessary if Nova Scotia producers are to continue to expand this crop.

Farm Labour Pools are providing an excellent service to the farmers of Nova Scotia. They have been responsible for improving relations between the growers and harvesting crews and have introduced new workers into the apple and blueberry harvest crews.

The Pools are co-ordinating the efforts of many of the contractors and crew leaders in such a way that these crews have become much more productive throughout the harvesting season.

The lack of skilled labour is still a problem and the only solution is to train individuals through the Farm Certificate and Farming Technology Programs. Wages in the agricultural industry are reasonably competitive. Agriculture is not listed under the National Training Act.

With new programs such as Farm Certificate, there is an opportunity to effect an attitude change that farm employment is a desirable occupation and not just a stepping stone to becoming a farmer. Gradually we see an increase in the number of skilled workers, but as these skilled workers become available, more skilled jobs are created.

MARKET DEVELOPMENT

Market Report — The weekly Market Report continues to be an invaluable tool to many (1,500) in agribusiness.

Market Update — The Market Update completed its first year of publication in 1981. Its general objective is to keep fellow Department staffers abreast of the latest happenings in the marketing field. Material is gleaned from various marketing periodicals. As well, marketing observations and happenings experienced by the Branch are reported.

Marketing Facts — This publication is issued at periodic intervals as subject matter becomes available. Unlike the Update, this deals with one subject only in fairly complete detail, so is a useful reference to be retained by the reader. Material is prepared and submitted by all members of the Branch.

School Milk Program — During the 1982-83 school year, 599 out of an eligible 645 Nova Scotia schools participated in this program, for a participation rate of 93 percent. The price of milk continues to increase periodically. After three years at the ten cent level, a price increase to 15 cents was made. During the fiscal year, the Nova Scotia Department of Agriculture and Marketing contributed $1,625,296 to the Program.

Metric Conversion — This Branch continued to act as metric co-ordinator for the Department of Agriculture and Marketing and, in so doing, acted as an information source for the Department and the private sector.

Tariff — The Branch continued to act as co-ordinator for the Maritime zone for the application and removal of seasonal tariffs on imported fresh fruits and vegetables.

Regulations — Work with marketing regulations increased as federal Consumer Affairs inspectors rely on provincial legislation in enforcing retail standards. Egg regulations were updated. Fruit and Vegetable regulations were reprinted.

Retail Price Monitor — The weekly monitoring of retail prices in five Truro stores was continued.

Special Projects — Weather conditions were favorable for the Chanterelle mushroom with an estimated 100,000 pounds being harvested. Three companies exported to Europe and Canada in fresh and processed form.

As a follow-up to test marketing in Metro Halifax in 1982, a province-wide promotion of frozen blueberries was held in October, 1983. This was done at the request of the Nova Scotia Blueberry Growers Association using the specially designed ten-pound box used in 1982. There were 3,000 boxes thus sold during the week-long promotion.

Other products — lingonberries, fiddleheads and dried flowers — were marketed.

Marketing staff continued to work in the area of red meats, dairy products, poultry and other livestock marketing. A cattle marketing guide was prepared. The Branch co-ordinated a weekly radio livestock price information program released via Nova Scotia Government Services channels. This successful program is carried as a public service by the majority of the Nova Scotia radio stations. Semi-annual or quarterly visits were made to eight red meat and poultry processors in Nova Scotia and in the Atlantic Provinces to two provincially inspected plants, six uninspected plants and three egg grading areas. In addition, two cheese processors and ten dairy processors were also visited. Considerable time was spent in obtaining a retail profile of livestock and poultry products. The Livestock Marketing Specialist acts as recording and correspondence secretary to the Nova Scotia Pork Stabilization Policy.

Staff continued to make regular contact with growers, packers, wholesalers, processors and related federal and provincial government agencies in order to keep informed of developments in the produce marketing systems as they occur and thus, in turn, informed the fruit and vegetable industry on marketing matters.

A close working relationship exists with the Maritime Strawberry Council, Eastern Canada Potato Agency, Vegetable and Potato Producers Association, Wild Blueberry Association of North America, Farm Fresh Marketing Association and the Nova Scotia Fruit Growers Association.

Overseas trips were made to Cologne, Germany, on behalf of the Wild Blueberry Association of North America and to the U. K. in order to establish better marketing channels for Nova Scotia apples. A roadside marketing tour to the Boston area was sponsored.

Considerable time was spent with the Farm Organizational Joint Services Society office in Blair House, Agricultural Centre, Kentville. The AFDA Market Development Committee meetings and their related fruit and vegetable studies were included in this time. Market information was handled on a daily basis on the "Market Line" during the Summer and Fall.

Nova Scotian food products were promoted using ads, new four-color blueberry and maple retail posters and ten commodity brochures. A major ad campaign was developed for the Nova Scotia Fruit Growers Association and over 50,000 entries were received. Special promotion programs were carried out for potatoes, Fresh for Flavor and milk. A code-a-phone listing U-Pick operators open each day for the strawberry, vegetable and apple seasons and an on-going advertising program of newspaper and radio was used for U-Pick and roadside stand locations. Highway signs were available for strawberries, apples, vegetables and honey.

The demand for viewing the Department slide show "It's In Our Nature" has been excellent. Considerable liaison with the retail trade in making use of Nova Scotia point-of-sale material developed was carried on. Press coverage was provided for the Agriculture Canada Wine and Cheese Festival held in Halifax. The Department helped to support the Nova Scotia team of Chefs de

Cuisine at the World Culinary Olympics in England. The team featured all Nova Scotia food products.

HORTICULTURE AND BIOLOGY BRANCH

OVERVIEW

This branch of the Department provides leadership and an advisory service to the horticultural industry on complex scientific techniques of commercial food and ornamental crop production. The work of Branch members in commodity groups is often advisory in nature but tends to be developmental as well, particularly when working with the research committees of the various horticultural producers' associations. Horticulture specialists in the Branch have also been active on the various sub-committees of the Canada/Nova Scotia Agri-Food Development Agreement, including the Berry Crops, Vegetable and Tree Fruits sub-committees. The Branch has also contributed considerable time to the AFDA On-Farm Resource Development, Technology Development and Technology Acceleration Committees.

The Horticultural industry strengthened and expanded again in 1983. The total farm value for horticultural crops in Nova Scotia in 1983 exceeded $60 million.

APICULTURE

Nova Scotia beekeepers had a good year in 1983. The average yield per hive was about 36 kg (80 pounds) which is slightly above average. Total honey production was 254 tonnes (280 tons), an increase of 14 percent over 1982. The number of hives remained at 7,000 and beekeepers remained at 690. The total value of the honey crop is estimated at $633,000 but the total value of the Nova Scotia beekeeping industry is estimated at $800,000 which includes hive rentals and value of beeswax. A total of 3,219 packages and 1,875 extra queens were imported in 1983. The number of colonies over-wintered in 1982-83 was 3,000.

APPLE MAGGOT CONTROL

Over the past few years, infestations of the Apple Maggot had been declining; however, this year an increase (11%) was found.

The Apple Maggot Control Board and the Food Production and Inspection Branch, Agriculture Canada, co-operated again in

carrying out the fall orchard inspections for presence of apple maggot.

Survey results for the past seven years are given in the following table:

	1977	1978	1979	1980	1981	1982	1983
No. of Registered Growers	285	338	326	272	268	253	236
No. of Orchard Blocks	872	885	858	755	756	755	697
No. of Infested Blocks	370	283	284	144	124	118	182
Percentage of Orchard Blocks Infested	42.4	32.0	33.1	19.1	16.4	15.6	26.1
Percentage of Contacts Infested	56.0	47.0	49.0	39.0	31.0	29.2	45.0

BERRY CROPS

Berry crops excluding lowbush blueberries reached a record value of $5,323,602 in 1983, up 14.3 percent from 1982. Dramatic increases were noted in strawberry fruit production of 4,300,000 quarts and strawberry nursery plants of 15,689,325, an increase of 60 percent over 1982 sales for Nova Scotia nurseries. Fifteen percent of the plant sales were to growers in Nova Scotia, while 85 percent of the plants were out of province.

In 1983, U-Pick accounted for 55 percent of the strawberry crop, down from 69 percent for 1982. Fresh strawberry fruit sales increased to 35 percent and processing increased to ten percent.

Blueberries

The blueberry industry had the largest recorded crop in the long history of production in Nova Scotia. A record 19,502,395 pounds of wild lowbush blueberries were harvested with a farm gate value of $8,000,000. Record blueberry crops in most North American production areas for the past two years combined with high prices in 1982 have resulted in an over-supply situation on World markets. The Nova Scotia Blueberry Institute was officially opened by the Honourable Roger Bacon, Nova Scotia Minister of Agriculture and

Marketing, in August, 1983. The Institute will serve to co-ordinate grower-oriented research and to provide field sites for applied research and demonstration projects. In 1983, a total of 1,588 acres was cleared, compared to 800 acres in 1982, with help from the Nova Scotia Department of Agriculture and Marketing Lowbush Blueberry Land Clearing Assistance Policy.

GREENHOUSE

The greenhouse industry in Nova Scotia continued to increase in total sales value in 1983 with sales estimated at about $11,000,000. Area in greenhouses remained at 18 hectares (40 acres) with about 80 commercial operators. Flower sales accounted for about 90 percent of the total sales and vegetables ten percent. The continuing conversion to wood-fired heating systems has reduced the industry's dependence on high priced oil and has resulted in a stable industry. Demand for greenhouse products remains strong and new programs for product identification and promotion have been introduced by the Greenhouse Growers' Association. the Glace Bay greenhouse vegetable project, utilizing hot water effluent from the heavy water plant, has been completed. The Nova Scotia Department of Agriculture and Marketing's participation in this project was terminated in November, 1983.

MAPLE SYRUP

Gross farm sales from maple products in Nova Scotia in 1983 was estimated at $418,000, compared to $339,000 from 1982. Average price to the maple producer was $6.42 per litre ($29.18 per gallon). Sixty-seven maple operations produced 65,130 litres (14,314 gallons) of pure maple syrup from 157,100 taps. The percentage of taps on tubing was 91 percent and nine percent of the taps were on the bucket system. Assistance policies have helped to rebuild the maple industry resulting in expansion and modernization. Cumberland County had 58.2 percent of the producers, 71.3 percent of the taps and 70 percent of the production. Colchester County followed with 22.4 percent of the producers, 17.6 percent of the taps and 18.5 percent of the production. The remainder of the production units were scattered throughout the Province.

ORNAMENTALS

A Nova Scotia nursery trades survey was completed in 1983 and indicated total gross sales of $13,735,505 from landscape contractors, landscape maintenance, nurseries, garden centres, sod growers, and tree pruners. Fifteen sod growers with 2,000 acres of sod production valued at $2,000,000, 20 nurseries and 28 garden centres were included in the survey. Interest in home gardening and do-it-yourself landscaping continues to grow rapidly. Garden clubs increased to 34 with an estimated 1,000 members. Seven Horticultural Societies carried on active programs on beautification with a membership of over 350 gardeners. Myrna Blenkhorn, Kentville and Les Blackburn, Truro, answered 1,249 home gardener requests in 1983 compared to 457 requests in 1982. The Home Gardener Telephone Call-In Service for both Kentville and Truro totaled 2,166 phone calls, up from 669 calls in 1982. Nova Scotia Garden Guide was aired on 14 radio stations in the Province. The Garden Guide series began on May 2nd and continued to September 30th.

VEGETABLES

The value of the vegetable industry for 1983 was estimated at $12,200,000 with a total marketable yield of 69,886,000 kg (153,749,200 pounds) of vegetables harvested from 4,670 hectares (10,378 acres). The Nova Scotia vegetable industry is comprised of about 250 commercial vegetable growers and 250 part-time commercial growers.

Vegetable production was above average in 1983 with the exception of early crops of potatoes and peas which yielded 25-30 percent lower than average due to adverse weather conditions. Prices for vegetables in 1983 were higher than 1982 and product volume was good. Potatoes, carrots, beans, rutabagas, cabbage, peas, sweet corn, cauliflower, tomatoes and cucumbers include the top ten vegetable crops in order of value at the farm gate. Market distribution of vegetable production in 1983 included 46 percent vegetable crops for processing, 25 percent retail and direct to retail, 15 percent Halifax wholesalers and eight percent out-of-province sales.

TREE FRUITS

The 1983 growing season got off to an early start as a result of above average winter and spring temperatures. The development of apple buds were about a week ahead of average with green tip occurring in some areas of the Valley by April 25th. The excessive rainfall during bloom did affect the fruit set of apples, pears and plums. The bloom period for apples lasted over two weeks and it appeared the later blooming varieties were affected by the lack of pollen from cross-pollination sources. The 1983 harvest season was similar to that of 1982. Warm and dry weather for much of September and October provided ideal harvest weather. There appeared to be an ample labour force as there were few complaints of lack of labourers.

Apples

The 1983 apple crop valued at $9,191,000 was estimated to be 2,850,000 bushels, an eight percent (250,000 bu.) decrease from the 1982 crop of 3,100,000 bushels. It is felt the primary reason for the reduction was due to poor pollinating weather and subsequent light fruit set. However, the bi-annual bearing effect resulting from the large crop in 1982 and a frost on May 28th which caused some fruit bud injury also have to be taken into consideration. The quality of the 1983 crop with regards to size and color was better than that of 1982. The increase in fruit size was especially noticeable in Red Delicious. The major quality problems were fruit russeting and apple scab.

An organized marketing plan was drawn up by the Nova Scotia Fruit Growers' Association in 1983 and growers with ten or more acres were eligible to vote. Over 50 percent of the growers voted for the plan; however, the 2/3 vote in favor was not obtained and, therefore, the plan was not adopted.

Macintosh, Cortland, Delicious, Gravenstein and Spy's are the main varieties with 64 percent of the apple crop delivered for processing. Fresh sales in Canada accounted for 33 percent and three percent was exported to England for fresh sales.

Pears and Stone Fruits

The 1983 pear crop was estimated to be 50,000 bushels which is identical to 1982's crop but 35,000 bushels lower than the 1981 crop of 85,000 bushels. Many stone fruit growers had their first substantial crop over the past three years. The growers that produce peaches and cherries had light to moderate crops of these stone fruits.

In 1983, 46,248 fruit trees were planted by 112 growers representing an increase of 15,924 trees compared to 1982 plantings.

EXTENSION BRANCH

OVERVIEW

The role of the Extension Branch is to provide a well-balanced, effective program of extension and service that meets the needs of the commercial farmer, the part-time farmer and the rural community, reaching as many people as possible. New approaches in extension include the Home Study Courses, which have gone very well, and a Short Course on farm management for part-time farmers. Technical information is provided through Short Courses and information meetings. Eighty such courses were offered at the county level in 1983.

The various sections of the Branch work to varying degrees in the areas of education, research, demonstration and service. In addition to regular extension work, the Branch is responsible for administering five policies.

AGRICULTURAL REPRESENTATIVES

A total of 18 Agricultural Representatives plus two Special Project Officers in 14 offices provide a general advisory service to producers on a wide range of topics relating to the production and marketing of crops, livestock, livestock products, farm management and credit.

The role of Agricultural Representatives and Special Project Officers is threefold: Firstly, they are responsible for identification of educational needs within their area and developing educational programs to meet these needs; Secondly, they are a point of contact for information and are responsible for keeping the farm and rural population informed of all Nova Scotia Department of Agriculture and Marketing policies and programs; Thirdly, they are involved with various Provincial Departmental programs, serve on committees as required and assist with the development and administration of these programs. In 1983, Agricultural Representatives were also involved with recommending applications for assistance under the On-Farm Resource Development Program of the Canada/Nova Scotia Agri-Food Development Agreement.

FARM MANAGEMENT

The primary objective of the Farm Management Division is to assist Nova Scotia farmers, farm leaders and Nova Scotia Department of Agriculture and Marketing staff in developing their farm business management knowledge and skills. Farm Management is concerned with the management of all resources available to the farm manager and with decision making. While we have placed most of our emphasis and programs on the business management aspect, this does not preclude a working knowledge of the remaining parts of the whole farm management area.

Farmer Counselling

Individual farmer contact continues to be a major part of our Farm Management Extension Program. This contact may be either farm calls by our staff or farmers seeking assistance through calls to our offices. During 1983, we had a total of 871 farm and office calls with farmers. Record Systems and Analysis involved 238 client contacts, Pre-Loan Counselling 196, Business Agreements and Tax Management 115, Financial Management and Analysis 130, and General Farm Management 192.

During 1983, staff prepared 182 formal budgets for farmers. These budgets were primarily in the form of cash flow analysis.

An indication of the respect for our staff is provided by the number of clients referred to us by others in the Department and by bankers, lawyers and accountants. This total for 1983 was 227 referrals for advice and assistance.

Record Systems and Analysis. Quality farm financial and production records are the basis of an information system required by the farm manager. While we place importance on promoting the development of a good record system with our farm clients, we have shifted our emphasis to that of making use of the information contained in the record system for management decisions.

Pre-Loan Counselling. The need for this service continues to be an important part of our Farm Management Program. The high debt, low equity positions faced by new entrants to agriculture places these producers in a high-risk situation.

It is important these farm families recognize the degree of risk involved and have an understanding of how to manage their business within the constraints this places upon them. It is also important for new entrants to agriculture to understand the financial as well as the management obligations they will be facing in the years ahead.

Business Agreements-Tax Management. Most major decisions taken by the farm manager have tax implications. In addition to the tax implications, interest in formal farm business agreements continues to increase from year to year. While our expertise has grown in this area, we see our role as one of providing information to farm families who have difficulties in the business agreement-tax management area.

Financial Management and Analysis. A major shift in the capital structure of our farm businesses, along with increasing investment requirements, has resulted in the use of larger amounts of borrowed capital. This, combined with difficult economic conditions enhanced by high interest rates and shifting demand for agricultural products, has left some farmers in very difficult financial positions.

Our staff has been involved with this problem from two standpoints: Firstly, we have spent a considerable amount of time assisting producers in re-assessing their managment and production programs. Secondly, an educational program or programs in the financial management area are most appropriate. During the past year, 40 percent of our Short Courses dealt with this aspect of farm business management. In addition, we have been able to acquire, through the Agricultural Food and Development Agreement, a new educational program in Farm Financial Management. This will be presented to various groups beginning in January, 1984.

General Farm Management. We have identified four major program and service areas where staff have spent a considerable amount of their time working with farmers. There are a number of other areas where we worked with our clients in addressing more general questions and concerns. During 1983, we had 192 client contacts that fell under this category. Many of the contacts under this heading were answers to specific management programs.

Farm Organizations

The Farm Management Divison has been working with farm organizations for the past number of years. In 1983, this involvement continued at, or above, previous levels. Primarily, our work with farm organizations has been one of providing economic expertise to various producer groups. This has mainly been in the area of cost calculations required by commodity groups and by the Nova Scotia Dairy Commission.

Farm Planning Tools

The staff of the Farm Management Division has made extensive use of the computerized farm planning tools in 1983. These aids have been used to assist in counselling, budgeting and analysis work with farmers. The planning tools are available from CanFarm via terminal on a fee-for-use basis. By using these aids, staff are able to provide farmers with a detailed comprehensive analysis of problems under consideration. By using the tools, the present staff complement have been able to provide a greater variety and number of services to our farmers than would be possible without the use of the computer.

Farm Record Systems

The cornerstone of the information system needed by the farm manager is the record system. The record system we suggest to farmers must not only capture the required financial information but should have a section for a limited amount of production data as well. Both financial and production data are essential if the farm manager is to do a good job in analyzing his management skills. Essentially, we are involved with two broad types of record systems: namely, manual and computerized.

Educational Programs

During 1983, staff participated in some 32 Short Courses and Workshops throughout Nova Scotia. Topics included Record Analysis, Tax Management, Financial Management and Basic Bookkeeping. In total, some 678 people attended these Short Courses.

We see a developing need for greater knowledge in the financial management area. With the micro-computer boom just around the corner, farmers, in order to be able to get maximum use of these tools, must have a basic understanding of the various cost concepts, financial statement and the mechanics of working a computer. While we do not see our Division meeting all these needs, we do see a significant role for our staff in this whole education area.

Management Information Program

The need for up-to-date, reliable management information related to costs, returns and production efficiencies has been increasing over the past number of years. In the Farm Management Division, we have identified one of our roles as to supply part of this information to our clients.

In 1983, our Division prepared and distributed a number of farm business summaries, production cost studies and farm management fact sheets relating to the farm business management area.

4-H AND RURAL YOUTH

"4-H — A Family Affair" was the 1983 4-H Theme. It exemplified the fact 4-H is not only non-formal education for rural youth but reaches the entire family. Many parents are involved as adult volunteer leaders learning leadership and technical skills. In many cases, 4-H unites the family in becoming a stronger unit.

Nova Scotia 4-H Council

The Nova Scotia 4-H Council played an active role in designing programs and advising on changes for the 4-H program during the year. The Council established the Nova Scotia 4-H Foundation and approved the following new competitions: Reginald Scothorn Memorial Dairy Fitting and Showing Competition, Rooster Crowing Competition, Market Cockerel Class and Record Keeping and Analysis Competition. The 4-H Council was under the capable leadership of Siscu Bekkers, Antigonish Landing, Antigonish County, as President.

Nova Scotia 4-H Week-End

Over 400 volunteers and members attended the entire 4-H Week-End held May 20 - 22, 1983, at the Nova Scotia Agricultural College. Competitions were held during the week-end in public speaking, demonstration, square dancing, woodworking, posters and decals. On Saturday, May 21st, over 1,000 attended 4-H Night in Nova Scotia at the Athletic Center. This highlighted the day's competition winners, as well as National 4-H award trips winners.

Competitors went on to Atlantic Competition to take top honours in their divisions.

Nova Scotia 4-H Show

The 1983 Nova Scotia 4-H Show was truly "a family affair." Over 10,000 people attended the week-end event at Windsor, September 30th — October 2nd. The Nova Scotia 4-H Show demonstrated the top in 4-H competition and has provided incentive and standards for 4-H membership.

Project quality has increased with members striving to qualify for the Nova Scotia 4-H Show.

The Market Steer and Lamb 4-H Show 'n Sale has been an addition to the show. Sixteen steers were sold in 1983 for an average price of $1.11 per pound and eight lambs for an average of $1.98 per pound.

Leader Training Events

A first was the Nova Scotia 4-H Leaders' Conference held at the Barrington Delta, Halifax, Nova Scotia, on October 29th — 31st, 1983. Seventy-five adult volunteers were recognized at this week-end seminar.

Two week-end seminars on winning-behaviour skills were held for senior 4-H members; 80 seniors participated in the two week-ends.

A collegiate 4-H program was established at Acadia and St. Francis Xavier University. This is a valuable alumni resource to 4-H in Nova Scotia.

Various programs were conducted on the County and local basis to teach project and leadership skills to 4-H members.

Five Camp Rankin 4-H Camps were held for junior and intermediate 4-H members; 250 members participated.

4-H Statistics

In 1983, there were 1,266 boys and 1,874 girls, for a total 3,140 youth enrolled in the program. The average age was 12.9 and the membership was enrolled for 2.3 years. The members enrolled in 4,898 projects and completed 3,854 projects for a completion of 79 percent.

In 1983, there were 137 multi-project community clubs with an average of 23 members. These clubs were led by 795 adult volunteers and 120 junior leaders in 35 different project areas. The membership carried 1.6 projects per member and completed 1.2 projects.

Project Breakdown

Beef Calf	278	Foods	434
Dairy Calf	412	Sewing	313
Poultry	141	Crafts	1,150
Light Horse	291	Woodworking	421
Rabbit	181	Outdoorsmen	254
Other Livestock	395	Others	328
Horticulture	299		

HOME ECONOMICS

The objectives of the Home Economics Division are:

To develop an awareness and an understanding with the general public of the Nova Scotia agricultural industry, utilization of Nova Scotia food commodities and an understanding of the basic management skills necessary to maximize value for every food dollar spent (in terms of both nutrition and economics).

To develop leadership, home management and related skills with Women's Institutes, 4-H homemaking, and farm women for

the betterment of themselves, their living environment and their community.

The Home Economics Division's program is co-ordinated by a staff of seven Home Economists located in six regional offices throughout the Province. The Home Economics Division serves a large clientele and, therefore, meets the needs through courses and the distribution of material, etc. The Division has distributed 49 percent of the total Extension Branch's publications and circulars, conducted 20 percent of the total courses and records 45 percent of the total Branch's attendance at those courses.

Food Education and Promotion

There are many exciting things happening in the area of Food Education but there is a lot more that can be done. Programs are concentrated on the use of Nova Scotia agricultural products rather than the more general topics of food basics.

Media releases have remained a very important part of the Food Education Program. There has been a significant increase in the number of releases through the newspaper.

Demonstrations and presentations to small community groups have decreased since the staff's energies have been directed to larger programs to gain more visibility. The demonstrations and presentations do have a place but take a lower priority than media, displays and courses.

Food displays in malls, at exhibitions, etc., coordinated in cooperation or on behalf of Nova Scotia commodities have remained a highlight in 1983.

Food Extravaganza shows have continued to be a timely, well-received food education program. Since the first one in Sydney three years ago, shows have been held in Bridgewater, Stellarton, Wolfville, Truro, Amherst and Yarmouth.

Women's Institutes of Nova Scotia

Women dairy producers in Annapolis County have been actively involved in a promotional project in grocery stores. This was an outcome of the topics at the Farm Women's Conference.

The Women's Institutes of Nova Scotia celebrated their 70th anniversary and in recognition of their close association with the Department of Agriculture and Marketing, the Home Economics Division coordinated a historical display at the convention in July.

Over the next few years, we expect to offer leadership programs to help members accept officer's positions both at the branch and district levels. Ongoing efforts and programs are done to promote the organization to the public, as well as the organization being challenged to keep abreast of the needs of potential new members.

4-H

Over 50 percent of the 4-H membership is enrolled in homemaking projects — crafts, foods and clothing. All of these projects are fairly involved in the sense there are high expectations in order to complete the projects successfully. The project completion rate increased by an additional 1.2 percent over 1982.

Four new sewing levels have been introduced this year as the second phase of the new sewing project. Both leaders and members are very enthusiastic about the new program, indicated by an increased enrollment.

In many areas 4-H is peaking at a high cycle. There is a great deal of enthusiasm from club to provincial level. The Nova Scotia 4-H Show still tends to be a focal point and a highlight of the 4-H year. A great deal of time is spent in the coordination of the homemaking competitions and activities, but they are a big part of the show.

A Heritage Project has been developed and piloted in Cape Breton. The project is a short term one focusing on the development of one's own heritage including the family tree, foods and crafts. The project has excellent potential and hopes it can go province-wide next year.

Staff have been involved in innovative leader and member training programs and are making plans along this line for 1984.

The Home Economics Division and the staff have a commitment to the development of rural Nova Scotians and educating the

general public about the food produced in Nova Scotia and the importance of agriculture. It has been a busy and exciting year and they look forward to the challenges of 1984.

YOUNG FARMERS' CONFERENCE

The 1984 Young Farmers' Conference was held at the Old Orchard Inn, Greenwich, Kings County, on February 15th — 17th, 1984, with an attendance of 56.

The Young Farmers' Conference has built a reputation over the years as a time when friendships can be renewed and new ones begun.

Those attending the conference were a highly energetic and social group with a higher percentage of singles than in previous years.

The conference's program on Thursday morning dealt with the marketing of Nova Scotia farm products, conducted by Gordon Kinsman and staff. The afternoon centered around a historical tour of Kings County with a special stop at Sarsfield Limited. Mini-sessions dealing with computers, grape growing, joint ownership, farm services and first aid made up Friday morning's program. Two informative and challenging guest speakers, Dr. Ellen McLean and Don Downe, rounded out the conference programming.

The general concensus of the young farmers attending was they found this conference informative, challenging, enlightening and recreational, while all stressed it should be an annual event.

1983 FARM WOMEN'S CONFERENCE

Farm Women from all across Nova Scotia gathered in Truro for the 4th Farm Women's Conference on November 2nd and 3rd, 1983. This conference is co-sponsored by Women's Institutes of Nova Scotia and the Department of Agriculture.

Three Nova Scotian farm women shared their thoughts, ideas and challenges in a panel presentation called "You, Your Home and Your Business." Conference delegates identified with the panel group as often it reflects their own farming situation.

The sessions challenged farm women to promote their products and to tell the story about agriculture. The program featured various workshops such as: Computers on the Farm, film and discussion on Matrimonial Property, Pesticide Safety, Food Preservation, Landscaping the Farm Home and personal sessions on colors, foot care and accessories.

The highlight of the conference is the exchange amongst farm women. This provides them with a means to share ideas, problems, learn new farming techniques, etc.

EXTENSION AGRICULTURAL ENGINEERING DIVISION

The work of the Extension Agricultural Engineering Division involves the provision of technical support services for various government programs to assist farmers and the agricultural industry in the construction of capital works. These works include farm structures for livestock housing, crop storage and handling, land development works and land protection works. The Division is also involved with providing consultation and technical service related to farm mechanization, crop processing, as well as storage and energy conservation and utilization.

The work of the Division can be reported under five program areas of Land Development, Farm Mechanization, Crop Processing, Land Protection and Farm Buildings.

Land Development Program

This program covers the provision of technical services with respect to land clearing, land forming, drainage, farm pond construction, and dykeland roads. It also involves administrative input and support to operating the Land Improvement Policy, through processing of applications, inspection of works and processing claims for assistance.

The Land Improvement Policy was amalgamated with the Lowbush Blueberry Land Clearing Policy this past year and the Engineering Division was assisted in the administration of the blueberry section of the policy by the Lowbush Blueberry Committee.

A statistical summary of the program is as follows:

No. of applications approved	1058
Total Value of Applications Approved	6,985,117.00
Grant Value of Applications Approved	5,238,837.00
Value of Claims Processed	4,167,444.98

Work accomplished on which subsidy was paid:

land clearing	4,098 acres
windrow removal	146,636 feet
apple tree removal	7,560
underdrainage	2,120,565 feet
surface ditching	774,275 feet
ditch spoil levelling	303,306 feet
land forming	782 acres
roads on dykelands	36,441 feet
land levelling	848 acres
land ripping	61 acres
lowbush blueberry land clearing	1,558 acres
firebreak construction	166,954 feet

Land Protection

This area of work includes programs related to the operation and maintenance of tidal dyke systems, the operation and maintenance of flood control structures on the Musquodoboit River and Brierly Brook and the construction of Main Outlet Drainage channels.

A joint project was undertaken by the Department of Agriculture and Marketing and the Department of Transportation to remedy drainage problems created by the construction of the 101 Highway in the Clarence area of Annapolis County. The project was very successful and has led to excellent cooperation from the Department of Transportation in areas where new roads are being constructed.

Some evaluation work was carried out on land upstream of the Annapolis Causeway to determine the effects raising the headpoint water elevations would have on drainage of farm lands adjacent to the river.

A statistical summary of the work is as follows:

Aboiteaux constructed	1
Aboiteaux relined	1
Aboiteaux repaired	32
Dyke topped	17,255 feet
Main Outlet drains	48,383 feet
Ditch spoil levelled	65,889 feet
Rock placed	37,829 tons
Dykes profiled	30 miles
Dykeland ditches profiled	23 miles
Upland ditches profiled	14 miles
Dyke topping surveys	3.5 miles

Farm Structures

A major part of Extension Engineering involves engineering work for farm structures.

The Livestock and Livestock Feed Facilities and Structures segments of the Canada/Nova Scotia AFDA Agreement requires major input from the Extension Engineers. The engineers must provide an engineering assessment to the Agriculture Canada Administrative staff on individual applications.

The Structures Engineers also become involved in various building related matters such as investigation of stray voltage in dairy barns, pollution control, and environmental assessments and lectures to various groups.

The Canada Plan Service continues to be a valued resource in the preparation of plan sets. A total of 2,192 CPS plan sets were distributed.

In addition to CPS plans and stock plans from our own files, 137 farm building plan sets were prepared in the Truro and Kentville centres. Plans prepared can be categorized as follows:

Beef	29
Dairy	15
Swine	15
Sheep	4
Poultry	4
Fruit and Vegetables	9
Grain, Forage and Feed	14
Special Structures	26
Building Engineering	10
Manure Handling & Storage	5
Equipment	6

Crop Processing and Storage

The Extension Engineering Division devotes considerable time and effort to this specialized area of work. The areas of work considered under this heading include:

Fruit & Vegetable Storages
Grain Storage & Feed Facilities — on-farm
Grain Storage & Handling Facilities — provincial centres
Energy Conservation and Alternate Energy Sources

Plans provided for these various facilities are as follows:

Fruit & Vegetable Storages	47
On-farm Grain Storage & Feed Facilities	55
Silo & Hay Storages	18

The Extension Engineering Division is also responsible to provide engineering expertise in the administration and management as well as construction work carried out at the Provincial Grain Centres for the Provincial Grain Commission.

Farm Power and Machinery

An increasing awareness of the importance of selection and proper maintenance of farm machinery by the agricultural industry is becoming more evident each year. The industry is becoming more efficient through mechanization and mechanization represents very significant capital inputs into the industry.

In this regard, the Power and Machinery Engineer and the Machinery Technician have been involved in a variety of activities. They also have worked in close co-operation with a number of other staff members in undertaking various projects.

The main areas of work in this section involve the following:

Farm Machinery Advisory Committee
Atlantic Farm Mechanization Show
ACAE Power & Machinery Advisory Committee
Blueberry Resource Committee
Vegetable Sub-committee

One of the main thrusts of the work is holding machinery evaluation and demonstrations throughout the province. Following is a list of demonstrations held during the past year.

Field Sprayer Evaluations	3
Plowing Demonstrations	5
Blueberry Harvester	2
Combine Adjustment	1
Vegetable Harvesters & Equipment	4
Forage Machine Demonstrations	2
Tillage Equipment	1
Strawberry Harvester	1

There were also 16 short courses conducted on various topics and over 60 farm calls made to individual farmers for various mechanization problems.

FARM AND HOME SAFETY

The Nova Scotia Farm and Home Safety Committee aims to promote safety in all aspects of farm life. Members of the Committee are drawn from the Nova Scotia Federation of Agriculture, Women's Institutes, the Workers' Compensation Board and the Nova Scotia Department of Agriculture and Marketing. The committee provides a forum for discussion and for co-operative action on rural safety projects.

The Great Farm Safety Contest was a major promotional effort to encourage farm people to read the Guide (which was

published in 1982). Nine organizations and businesses provided over $1,300 in prizes as an incentive.

The committee maintains an extensive film library on a wide variety of safety topics. A slide-tape series on chemical safety was added this year. Audio-visual materials may be borrowed by community organizations by contacting the audio-visual coordinator at the Nova Scotia Agricultural College.

A Safety Booth was sponsored at the Cumberland County exhibition at Oxford, on the theme of preventing tractor roll-overs. There was good viewer response.

During the year, the committee began the production of several resource materials. These include a poster on tractor roll-overs, a poster and fact sheet on manure gas, a poster on silo hazards and a pamphlet on chemical safety. One thousand copies of a stick-on logo "Safety — Think, Talk, Practice" were prepared. These will be distributed to farmers for use on or near farm hazards.

N. S. FARM & COUNTRY VACATIONS

Host Homes — Our 1983 Guide listed 36 homes of which 30 completed and returned the 1983 Summary, upon which this report is based. Of these, 30 reported receiving guests during the summer (June 1 to September 30). Nine reported receiving guests throughout the rest of the year as well.

The 1983 Summary provided the following information:

Number of beds: Single—45; Double—68; Total—113
Number of Guest Days—4,822; 1982—4,068
Number of Guests—3,896; 1982—3,206
Number of Bed & Breakfast Guests—2,942;Homes Reporting—27

This represents an increase this year of 754 guest days — a percentage increase of 18.5 compared to 1982. It represents an increase of 690 guests — a percentage of 21.5 compared to 1982. In terms of average number of days stayed per visitor (total guest days divided by total guests), this works out to 1.2 days for 1983. This compared to 1.3 days in 1982.

Of this year's guests, 61.4 percent were Americans as compared to 55.2 percent in 1982; 33.4 percent were Canadians as compared to 40 percent in 1982.

Conclusion

1983 has been a successful year. Most hosts enjoyed increased volumes resulting in increased volumes overall. However, some hosts had fewer guests. Visitor stays are still shortening. The future is promising but only to a carefully managed and well-run program.

SOILS AND CROPS BRANCH

OVERVIEW

The Soils and Crops Branch is responsible for crop extension activities for all cereal and forage crops grown in Nova Scotia which are utilized either as human or as animal feeds. Tobacco, which is grown entirely as a cash crop, is also the responsibility of the Soils and Crops Branch. The Branch is also responsible for expertise in six other major areas of activity:

(i) Weed expertise for all crops and the administration of the Weed Control Act;

(ii) Soils expertise to serve all branches of the Department of Agriculture and Marketing and other Departments of Government, i.e., Departments of Health, Forestry and Environment;

(iii) Establishing a co-ordinated criteria for land use planning as affected by Agriculture and other Departments of Government, i.e., Development, Transportation, Municipal Affairs, Lands and Forests and Tourism;

(iv) Soil survey, a section headed by staff of the Federal Government under funding of the Soils Resource Research Institute, is supported in Nova Scotia with housing, including laboratory facilities, one full-time professional and one full-time agricultural technician;

(v) Provincial Chemistry Laboratory Services maintained at Truro serves all professional staff of the Department of Agriculture and Marketing, all farmers, market gardeners, greenhouse operators and homeowners in both soil and water sample chemical analysis, as well as livestock feed sample analysis to determine the nutrient content. Plant foliar analysis service is provided to greenhouse operators and orchardists at a nominal cost. All other routine laboratory analysis service is provided free of charge to Nova Scotia residents;

(vi) The Soils and Crops Branch is responsible for the administration of a Pesticide Residue Analysis Service located at the Kentville Agricultural Centre which is cost-shared equally with the other three Atlantic Provinces.

THE SEASON

It was generally a warmer than normal year in 1983, characterized by a mild winter and a very wet spring. Temperatures were favourable for good growth but water excess and deficiency at various times in the season caused problems. There was fine weather for haying in June, for harvesting in September, and for fall field work in October.

The winter of 1982-83 was very mild with temperature about 2°C (3°F) above normal. Spring was early and wet with April rainfall 40 percent above normal. May was warm but wetter yet with almost double the normal rainfall. Perennial forage crops grew well but seeding was delayed.

June was warm and dry with rainfall 50 percent below average providing good haying weather. Forage yield and quality were excellent but regrowth was slow.

July and August had near normal temperatures but well above normal rainfall, generally providing good growing conditions. However, a very uneven rainfall distribution from a few heavy showers, particularly in the Annapolis Valley, did not provide the steady supply of water needed by crops, causing water deficits on lighter soils.

September, with below normal rainfall and above normal temperatures, provided good conditions for harvesting and field work.

Looking at the growing season total rainfall: Yarmouth and Kentville were about average; the driest — the Central Region — represented by Truro and Nappan, was wetter about 30 percent above normal; and the Eastern Region, represented by Antigonish and Sydney, was the wettest with about 50 percent above normal.

October gave good conditions for fall field work with above normal temperatures and below normal rainfall. There was a return to more fall-like weather in November with above normal rainfall and above normal temperatures. December was an average month.

Average Temperature and Precipitation Departure From Normal in Nova Scotia During 1983

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	YEAR
Temp. Departure From Normal (0 °C)	+1.9	+1.8	+1.8	+1.8	+0.9	+0.8	+0.1	0	+1.7	+0.8	+0.7	+0.1	+1.0
Total Precip. % Departure From Normal (mm)	−20	0	+50	+40	+80	−40	+90	+30	−40	−40	+10	0	+13

NOTE — These values are six (6) station averages.

TRENDS

Fall seeded rye is an excellent crop agronomically for Nova Scotia farmers and for Nova Scotia soils but it is very difficult to market at a price which fairly represents its true feeding value. Research has shown it to be an excellent feed source but many Nova Scotia livestock farmers are prejudiced against its use. Consequently, local livestock feed manufacturers are very reluctant to purchase rye in any quantity.

The winter wheat variety Lennox has caused marketing problems for Dover Mills and has now been downgraded to feed wheat status. Monopol is a very promising new red winter wheat variety with excellent milling quality and as more seed becomes available, it is replacing Lennox. Vuka, a newly licensed feed wheat, may also replace Lennox. It is higher yielding than Monopol but not as winter-hardy. These two new European varieties are being tested extensively in Ontario and the Province of Quebec.

Additional varieties of both winter- and spring-seeded wheats with milling quality are being evaluated, both at the research and on-farm level.

In 1983, spring seeding was delayed to the point in early June when many farmers opted not to plant cereal grains. While in most years this would have been the right decision, those that did seed in early June were rewarded with an excellent harvest with first frost being delayed a month in most areas. Yields on late-seeded cereals were better by comparison than for cereals seeded early, which then experienced a prolonged period of cold, wet weather.

There is a gradual increasing interest in expanded grain production. Many farmers are installing at-home storage, drying and

milling facilities. Cereal crop production technology at the farm level is also improving.

Corn

The total acreage of corn is holding steady at approximately 13,900 acres (8,000 for silage and 5,900 for grain). Improved varieties are higher yielding and earlier maturing. Farmers are more aware of the need to rotate corn with other crops.

Forage

Acres of alfalfa are expanding as more emphasis is placed on the quality of forage stored in the form of haylage.

New improved varieties of Red Clover are being evaluated at the farm level for yield, quality and persistence.

Annual Rye Grass seed sales in Nova Scotia are now ranked third behind Timothy and Red Clover. Farmers are now able to use it to advantage for their specific needs at certain times of the year.

There is a noticeable desire among farmers to: (1) improve the quality of their forage crops (pastured and stored); and (2) increase the self-sufficiency of all their feed requirements.

Tobacco

1983 proved to be another excellent year for tobacco with yields surpassing the record year of 1982. In 1983, 16 growers produced 1,626,485 pounds of contract tobacco on 690 acres for an average yield of 2,357 pounds per acre. Growers received $1.586 per pound for a gross return of $2,579,605.21.

Soybeans

Newly-licensed varieties of soybeans have given Nova Scotia farmers another crop with potential. Yields to date are very encouraging. Soybeans are a very demanding crop but will respond if critical management factors are accomplished.

Soybeans are a legume crop with excellent qualities as a grain rotation crop. No special equipment is necessary to grow the

crop and they can be home milled into rations for ruminant animals with considerable savings to the farmer for purchased feed. An estimated 600 acres were successfully grown in the Central and Annapolis Valley areas during 1983.

Canola

1983 was the second year of commercial-sized seedings of Canola. A total of 110 acres (44 hectares) was seeded by five farmers. About 25 percent of the crop was seeded later than planned due to the weather. The variety was Regent, which was specified by the buying company. Yields obtained were 1 tonne/acre (2,250 pounds/acre) on two farms and less than 1 tonne/acre (2,250 pounds/acre) down to 1/3 of a tonne/acre (750 pounds/acre). The price received was $312.00/dry tonne ($350.50/dry ton). Very considerable marketing costs, i.e. trucking $25.00, drying $39.50 and cleaning and bagging $50.00, reduced the farmer's net dry tonne/ton returns to $197.55/$221.97.

The crop has excellent merits in crop rotations and if yields of more than a tonne/acre (2,250 pounds/acre) of mature good quality seed can be obtained, the acreage will expand as quickly as satisfactory marketing arrangements can be made. Grower interest to date has been excellent.

Seed

The Nova Scotia Pedigreed Seed Production Assistance Policy was continued in 1983. A total of eight seed growers were paid assistance totalling $6,991.20 (maximum $2,000 per grower) during 1983. Assistance was paid on a total of 16 different crop kinds.

This assistance policy is designed to make cereal seed production in Nova Scotia more profitable so more seed will be grown, decreasing Nova Scotia farmers' dependence on imported seed.

NOVA SCOTIA WINTER GRAIN MARKETING BOARD

The Nova Scotia Winter Grain Marketing Board represents growers of corn, rye, wheat, oats, barley and soybeans who consign their crops to a marketing pool.

MARKETING OF 1983 CROP

Pool	1983	1982	1983 Average	1982 Returns
		(Tons)		
Corn	1,554	1,610	$186.12	$150.78
Rye	1,866	2,835	143.82	117.60
Wheat (Feed)	1,293	2,436	178.07	147.50
Wheat (Flour)	2.779	1,527	193.44	175.44
Oats	1,603	2,579	143.82	117.47
Barley	1,183	2,912	141.52	119.30
Soybeans	122	—	357.72	—

The Advance Payment System to cover locally grown grain has been well received by Nova Scotia growers and has proved to be a further incentive towards increased cereal grain production. Under this program, growers receive 80 percent of the anticipated market price at time of delivery to a grain center and the remainder when final costs, charges and sales have been determined. Total money involved in 1983 advance payments was $1,331,011.00, of which $650,292 was from provincial funding. Payments during 1983 were down from the $1,461.00 total for 1982, due largely to lower grain yields.

FERTILIZER ASSISTANCE POLICY (1983-84)

County	No. of Applications	Average Applications	Total Expenditure
Annapolis	169	569.20	96,194.80
Antigonish	154	895.41	137,892.67
Cape Breton	75	577.48	43,311.05
Colchester	282	693.62	195,602.18
Cumberland	200	641.87	128,374.99
Digby	31	236.56	7,333.50
Guysborough	42	248.31	10,429.09
Halifax	78	662.70	51,690.62
Hants	184	651.69	119,910.64
Hants East	102	983.56	100,323.62
Inverness	109	586.73	63,953.53
Kings	504	850.37	428,585.82
Lunenburg	170	323.91	55,064.20
Pictou	225	516.98	116,320.48
Queens	19	186.18	3,537.42
Richmond	9	142.88	1,285.94
Shelburne	3	153.37	460.13
Victoria	20	458.50	9,169.91
Yarmouth	54	419.08	22,630.06
	2,430	655.17	1,592,070.65

PROVINCIAL CHEMISTRY LABORATORY

A total of 25,057 samples were received for analysis during the 1983 calendar year. Soil samples declined 3.8 percent and feed samples increased 14 percent following a 22.9 percent increase in 1982 over 1981. The following is a summary list of samples received during 1983:

Material	1982	1983	% Change
Soils			
Field	13,614	12,997	
Greenhouse	2,394	2,399	
Sub-Total	16,008	15,396	-3.8
Feeds			
Forage	2,515	2,650	
Cereals	1,335	926	
Milled Feeds	1,190	1,436	
Others	472	1,274	
Sub-Total	5,512	6,286	+14
Foliar Tissue			
Commercial	1,098	1,242	
Experimental	588	866	
Sub-Total	1,686	2,108	+25
Water	1,050	1,117	+6
Misc.	109	168	
Total	24,365	25,057	+2.9